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10/542,116	07/12/2005	Joachim Charzinski	39090-37	9813

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EXAMINER
NGUYEN, THU HA T

ART UNIT	PAPER NUMBER
2453	

NOTIFICATION DATE	DELIVERY MODE
03/17/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>08 December 2009</u>.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>19,21-23,25-27 and 29-38</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>19, 21-23, 25-27, 29-38</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   Claims **19, 21-23, 25-27, and 29-38** are presented for examination.

2.   Claims 19, 23, and 27 are currently amended.

3.   Claims 1-18, 20, 24, and 28 are cancelled without prejudice.

Response to Arguments

4.   Applicant's arguments filed December 08, 2009 have been fully
considered but they are not persuasive because of the following reasons:

5.   Applicant argues that the rejection under 35 U.S.C 101 for claims 19, 23,
27 and 38 are traversed. Claims 19, 23 and 27 are indeed tied to a particular machine,
namely the packet-switching data network that has a first and second transmission path.
Claim 38 does not fall under the Bilski teas as it is not a method claim, nor is a
computer program per se.

6.   In response to applicant's argument, the examiner submits that the instant
claims (19, 23 and 27) are neither positively tied to a particular machine that
accomplishes the claimed method steps nor transform underlying subject matter, and
therefore do not qualify as a statutory process.   For example, claims 19, 23 and 27
recited a method including steps of "assigning a maximum traffic distribution
weighting…; assigning a minimum traffic distribution weighting… and subsequently
assigning…" is broad enough that the claim could be completely performed mentally,
verbally or without a machine nor is any transformation apparent. The examiner also
asserts that claims 38 recited "a routing table…; the routing table is constructed in a
manner such that..." is just limited to a functional descriptive materials consists of

computer program per se, instead of being defined as including tangible embodiments

(i.e., a computer readable storage medium such as memory device, storage medium,

etc.,). Therefore, the rejection under 35 U.S.C 101 is remained.

      7.   Applicant argues that link capacities and their usage in Dighe, however,

are completely different from link weights. Traffic distribution weightings simply control

the distribution of packet traffic in term of percentages of traffic taking one or more other

way independent of the absolute amount of traffic that does not teach from Dighe.

      In response to applicant's argument that the references fail to show certain

features of applicant's invention, it is noted that the features upon which applicant relies

(i.e., Traffic distribution weightings simply control the distribution of packet traffic in term

of percentages of traffic taking one or more other way independent of the absolute

amount of traffic) are not recited in the rejected claim(s). Although the claims are

interpreted in light of the specification, limitations from the specification are not read into

the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

      8.   Applicant argues that weights do not limit the traffic, but the capacities of

Dighe do, -weights just control traffic distribution.

      In response to applicant's argument that the references fail to show certain

features of applicant's invention, it is noted that the features upon which applicant relies

(i.e., weights do not limit the traffic and weights just control traffic distribution) are not

recited in the rejected claim(s). Although the claims are interpreted in light of the

specification, limitations from the specification are not read into the claims. See *In re

Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

9.   Applicant argues that Dighe does not disclose traffic weights and assigning the maximum traffic distribution weighting to the second transmission path in the event of failure of the first transmission path.

10.   In response to applicant's argument, the examiner submits that Dighe does teach the feature of assigning the maximum traffic distribution weighting to the second transmission path in the event of failure of the first transmission path as shown in col. 4, line 6 -col. 8, line 64.

11.   Therefore, the examiner asserts that cited prior art teaches or suggests the subject matter broadly recited in independent claims 19, 23, 29, and 38. Claims 21-22, 25-26, 29-37 are also rejected at least by virtue of their dependency on independent claims and by other reasons set forth in this office action.

12.   Applicants still have failed to identify specific claim limitations that would define a patentable distinction over cited prior arts. Accordingly, rejections for claims 19, 21-23, 25-26, and 29-38 are maintained.

Claim Rejections - 35 USC § 101

13.   35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

14.   Claim 19, 23, 27 and 38 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

15.   Claims 19, 23 and 27 fail the machine-or-transformation test which is a

two-branched inquiry. It may be shown that a process claim satisfies 35 USC § 101 by

showing that a claim is tied to a particular machine or by showing that a claim

transforms an article into a different state or thing. See *Gottschalk v. Benson, 409 U.S.*

63, 67 (1972). As to the first prong (machine), the Examiner cannot find any showing

that these claims are attached to a specific machine. As to the second prong

(transformation), the process claims do not transform a physical article into a different

state or thing. The process claims are merely manipulating abstract data without regard

to any physical article or object.

Therefore, claims 19, 23 and 27 are rejected under 35 U.S.C. 101 as not falling

within one of the four statutory categories of invention. While the claims recite a series

of steps or acts to be performed, a statutory "process" under 35 U.S.C. 101 must (1) be

tied to particular machine, or (2) transform underlying subject matter (such as an article

or material) to a different state or thing. See page 10 of In Re Bilski 88 USPQ2d 1385.

The instant claims are neither positively tied to a particular machine that accomplishes

the claimed method steps nor transform underlying subject matter, and therefore do not

qualify as a statutory process.   Claims 19, 23 and 27 recited a method including steps

of "assigning a maximum traffic distribution weighting…; assigning a minimum traffic

distribution weighting… and subsequently assigning…" is broad enough that the claim

could be completely performed mentally, verbally or without a machine nor is any

transformation apparent.

16.   Claim 38 is not limited to tangible embodiments. Claim 38 recited "A
network node for a packet-switching data network, comprising: a routing table...; the
routing table is constructed in a manner such that..." is just limited to a functional
descriptive materials consists of computer program per se, instead of being defined as
including tangible embodiments (i.e., a computer readable storage medium such as
memory device, storage medium, etc.,). As such, the claim is not limited to statutory
subject matter and is therefore nonstatutory. Appropriate correction is required.

Claim Rejections - 35 USC § 103

17.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for
all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

18.   Claims 19, 21-23, 25-27, and 29-38 are rejected under 35 U.S.C. § 103
(a) as being unpatentable over **Billhartz et al.** (hereinafter Billhartz) U.S. Pub. No.
2003/0202476, in view of **Dighe et al.** (hereinafter Dighe) U.S. Patent No. **6,141,319**.

19.   As to claim 19, **Billhartz** teaches the invention as claimed, including a
method for routing data packets having a destination address in a packet-switching data
network, wherein a first and a second transmission path is assigned to the destination
address, the first and second transmission paths included in a routing table of a network

node of the data network, wherein the first and second transmission paths have traffic

distribution weightings indicating a traffic load allocated to each transmission path, the

method comprising:

assigning a maximum traffic distribution weighting to the first transmission path

(paragraphs [0041-0043], [0048-0054], [0068-0071]); and

assigning a minimum traffic distribution weighting to the second transmission

path, wherein data packets are routed via the first transmission path during undisturbed

operation and the data packets are routed via the second transmission path if the first

transmission path is interrupted and no other transmission path has a positive traffic

distribution weighting (paragraphs [0014], [0032-0044], [0047-0054], [0080-0081]).

However, **Billhartz** does not explicitly teach subsequently assigning the

maximum traffic distribution weighting to the second transmission path in an event of

failure of the first transmission path.

Dighe teaches subsequently assigning the maximum traffic distribution weighting

to the second transmission path in the event of failure of the first transmission path (col.

6, line 24-col. 8, line 64).

It would have been obvious to one of ordinary skill in the Data Processing art at

the time of the invention was made to combine the teachings of **Billhartz** to include the

feature of subsequently assigning the maximum traffic distribution weighting to the

second transmission path in the event of failure of the first transmission path as

disclosed by **Dighe** because it would provide an efficient network restoration which

optimizes the amount of primary capacity in a network while reserving sufficient capacity
to restore all single-link failures.

20.   As to claim 21, **Billhartz** teaches the invention as claimed in claim 19,
wherein, in the event of failure of the first transmission path, a third transmission path is
calculated, which is given the minimum traffic distribution weighting ([0032-0044], [0050-
0054]).

21.   As to claim 22, **Billhartz** teaches the invention as claimed in claim 19,
wherein a network node is controlled such that the transmission path on which a
network node receives a data packet is blocked for the return transmission of the same
data packet ([0036-0038]).

22.   As to claim 23, **Billhartz** teaches the invention as claimed, including a
method for routing data packets having a destination address in a packet-switching data
network, wherein a first, a second, and a third transmission path is assigned to the
destination address, the first, second, and third transmission paths included in a routing
table of a network node of the data network, wherein the first, second, and third
transmission paths have traffic distribution weightings indicating a traffic load allocated
to each transmission path, the method comprising:

     assigning a maximum traffic distribution weighting to the first transmission path
(paragraphs [0041-0043], [0048-0054], [0068-0071]); and

assigning a minimum traffic distribution weighting to the second and to the third

transmission path, wherein data packets are routed via the first transmission path during

undisturbed operation and the data packets are routed via the second or third

transmission path if the first transmission path is interrupted and no other transmission

path has a positive traffic distribution weighting (paragraphs [0014], [0032-0044], [0047-

0054], [0080-0081]).

However, **Billhartz** does not explicitly teach subsequently assigning a traffic

distribution weighting that deviates from the minimum traffic distribution weighting of at

least one of the first or second transmission path in an event of failure of the first

transmission path.

Dighe teaches subsequently assigning a traffic distribution weighting that

deviates from the minimum traffic distribution weighting of at least one of the first or

second transmission path in the event of failure of the first transmission path (col. 6, line

24-col. 8, line 64).

It would have been obvious to one of ordinary skill in the Data Processing art at

the time of the invention was made to combine the teachings of **Billhartz** to include the

feature of subsequently assigning a traffic distribution weighting that deviates from the

minimum traffic distribution weighting of at least one of the first or second transmission

path in the event of failure of the first transmission path as disclosed by **Dighe** because

it would provide an efficient network restoration which optimizes the amount of primary

capacity in a network while reserving sufficient capacity to restore all single-link failures.

23.   As to claim 25, **Billhartz** teaches the invention as claimed in claim 23, wherein, in the event of failure of the first transmission path, at least one additional transmission path is calculated that is given the minimum traffic distribution weighting (0032-0044], [0050-0054], [0080-0081]).

24.   As to claim 26, **Billhartz** teaches the invention as claimed in claim 23, wherein a network node is controlled such that the transmission path on which a network node receives a data packet is blocked for the return transmission of the same data packet ([0036-0038]).

25.   As to claim 27, **Billhartz** teaches the invention as claimed, including a method for routing data packets having a destination address in a packet-switching data network, wherein a first, a second, and a third transmission path is assigned to the destination address, the first, second, and third transmission paths included in a routing table of a network node of the data network, wherein the first, second, and third transmission paths have traffic distribution weightings indicating a traffic load allocated to each transmission path, the method comprising assigning a minimum traffic distribution weighting to the third transmission path, wherein the third transmission path is used for the transmission of data packets only in the event of failure of at least a part of both the first and second transmission paths and no other transmission path has a positive traffic distribution weighting (paragraphs [0032-0044], [0047-0054], [0065-0071], [0080-0081]).

However, **Billhartz** does not explicitly teach subsequently assigning a traffic distribution weighting that deviates from the minimum traffic distribution weighting of at least one of the first or second transmission path in an event of failure of the first transmission path.

Dighe teaches subsequently assigning a traffic distribution weighting that deviates from the minimum traffic distribution weighting of at least one of the first or second transmission path in the event of failure of the first transmission path (col. 6, line 24-col. 8, line 64).

It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention was made to combine the teachings of **Billhartz** to include the feature of subsequently assigning a traffic distribution weighting that deviates from the minimum traffic distribution weighting of at least one of the first or second transmission path in the event of failure of the first transmission path as disclosed by **Dighe** because it would provide an efficient network restoration which optimizes the amount of primary capacity in a network while reserving sufficient capacity to restore all single-link failures.

26.   As to claim 29, **Billhartz** teaches the invention as claimed in to claim 27, wherein, in the event of failure of at least a part of the transmission paths with values that deviate from the minimum traffic distribution weighting, at least one further transmission path is calculated that is given the minimum traffic distribution weighting (0060-0071], [0080-0081]).

27.   As to claim 30, **Billhartz** teaches the invention as claimed in claim 27, wherein a network node is controlled such that the transmission path on which a network node receives a data packet is blocked for the return transmission of the same data packet ([0036-0038]).

28.   As to claim 31, **Billhartz** teaches the invention as claimed in to claim 27, wherein a multipath routing method is applied in the packet-switching data network ([0015], [0036], [0077]).

29.   As to claim 32, **Billhartz** teaches the invention as claimed in claim 27, wherein a network operated in conformance with the Internet Protocol is used as the packet-switching data network ([0015], [0036-0037], [0077]).

30.   As to claim 33, **Billhartz** teaches the invention as claimed in claim 27, wherein at least the failure of the first transmission path of a network node is communicated to at least one further network node ([0048-0062]).

31.   As to claim 34, **Billhartz** teaches the invention as claimed in claim 33, wherein the transmission is effected by means of a protocol ([0015], [0036-0037], [0077]).

32.   As to claim 35, **Billhartz** teaches the invention as claimed in claim 33, wherein a recalculation of at least one transmission path of at least one destination address is carried out in at least one further network node ([0048-0062]).

33.   As to claim 36, **Billhartz** teaches the invention as claimed in claim 27, wherein at least one further traffic distribution weighting is assigned to the transmission paths with a minimum traffic distribution weighting entered in the routing table, said further traffic distribution weighting being used if a transmission path is interrupted ([0032-0044], [0050-0054], [0080-0081]).

34.   As to claim 37, **Billhartz** teaches the invention as claimed in claim 36, wherein a transmission path is assigned respectively to the further traffic distribution weightings entered in the routing table and this traffic distribution weighting is used in the event of failure of the assigned transmission path ([0032-0044], [0050-0054], [0080-0081]).

35.   As to claim 38, **Billhartz** teaches the invention as claimed, including a network node for a packet-switching data network, comprising: a routing table for entering destination addresses to which transmission paths and traffic distribution weightings are assigned, wherein at least two paths are provided per destination address, and wherein the routing table is structured in a manner such that the minimum traffic distribution weighting is assigned to at least one transmission path for a

destination address and no other transmission path has a positive traffic distribution

weighting, the transmission of at least one part of the packets is effected via the path

with the minimum traffic distribution weighting (paragraphs [0032-0044], [0047-0054],

[0065-0071], [0080-0081]).

However, **Billhartz** does not explicitly teach at least one other transmission path

has a traffic distribution weighting that deviates from the minimum traffic distribution

weighting and in that the router can be controlled such that in the event of interruption of

at least one part of the paths with a traffic distribution weighting that deviates from the

minimum traffic distribution weighting.

Dighe teaches at least one other transmission path has a traffic distribution

weighting that deviates from the minimum traffic distribution weighting and in that the

router can be controlled such that in the event of interruption of at least one part of the

paths with a traffic distribution weighting that deviates from the minimum traffic

distribution weighting (col. 6, line 24-col. 8, line 64).

36.   It would have been obvious to one of ordinary skill in the Data Processing

art at the time of the invention was made to combine the teachings of **Billhartz** to

include at least one other transmission path has a traffic distribution weighting that

deviates from the minimum traffic distribution weighting and in that the router can be

controlled such that in the event of interruption of at least one part of the paths with a

traffic distribution weighting that deviates from the minimum traffic distribution weighting

as disclosed by **Dighe** because it would provide an efficient network restoration which

optimizes the amount of primary capacity in a network while reserving sufficient capacity

to restore all single-link failures.

Conclusion

37.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of

time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

38.   Any inquiry concerning this communication or earlier communications from

the examiner should be directed to Thu Ha Nguyen, whose telephone number is (571)

272-3989. The examiner can normally be reached Monday through Friday from 8:30

AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Joseph Thomas, can be reached at (571) 272-6776.

The fax phone numbers for the organization where this application or proceeding

is assigned are (571) 273-8300 for regular communications.

Information regarding the status of an application may be obtained from the

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

/THUHA T. NGUYEN/

Primary Examiner, Art Unit 2453